

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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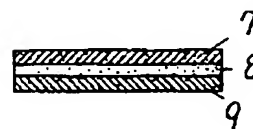
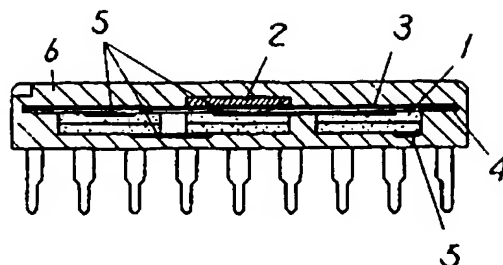
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INVENTOR : SEKIDO SATOSHI;

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TITLE : INFORMATION MEMORY DEVICE



ABSTRACT : PURPOSE: To provide an auxiliary power source built-in memory device having long life and compact size by incorporating all solid state secondary batteries in a resin package.

CONSTITUTION: A solid state unit cell 1 measuring 5×5×0.8mm and a semiconductor memory device chip 2 are fixed on the both sides of a lead frame 3, and electrodes 5 for connecting unit cells in series are arranged, and they are incorporated in a resin package 6 which also serves as a battery container. A unit cell pellet consists of a positive layer 7 comprising positive mix of the mixture of  $\text{Cu}_{0.6}\text{V}_2\text{O}_5$  powder and Cu ion conductive electrolyte of  $\text{RbCu}_4\text{I}_{1.5}\text{Cl}_{3.5}$  powder and graphite, an electrolyte layer 8 comprising Cu ion conductive solid electrolyte of  $\text{RbCu}_4\text{I}_{1.5}\text{Cl}_{3.5}$ , and a negative layer 9 comprising negative mix of the mixture of  $\text{Cu}_2\text{S}$  powder, Cu powder, and Cu ion conductive solid electrolyte  $\text{RbCu}_4\text{I}_{1.5}\text{Cl}_{3.5}$  powder. By packaging together memory device and batteries, volatile memory device which loses memory stored when it is separated from power source can be converted into virtual nonvolatile memory device.

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